

Building a High-Quality Education Workforce

A Governor's Guide to Human Capital Development



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Executive Summary

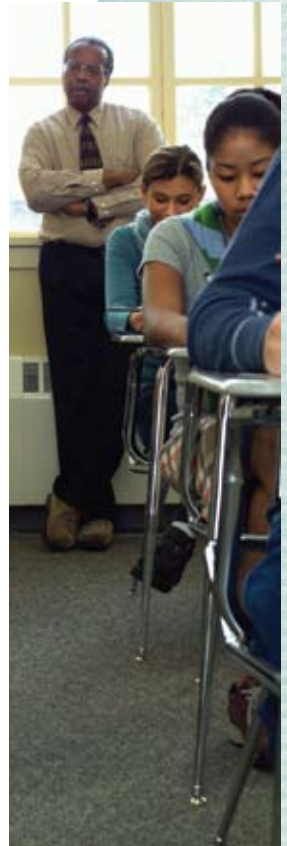
The long-term health of each state's economy rests on the state's ability to educate and eventually employ citizens who contribute to its economy by filling jobs in a variety of sectors. With the globalization of the economy and shifts in supply and demand for a wide variety of occupations, students in public schools need effective teachers and effective principals to achieve at higher levels and to compete both nationally and internationally.

Teacher effectiveness is the primary influence on student achievement, followed by principal effectiveness.¹ Given this reality, state efforts to improve student achievement should focus on workforce policies and practices, and on workforce funding decisions that improve the quality of the education workforce. To do this, governors should consider a comprehensive human capital approach that strategically invests in teachers and principals and that, in turn, can improve student outcomes.

Governors should consider two approaches when adopting a comprehensive human capital approach to build a high-quality education workforce. The first is a cost-neutral approach that includes the redistribution of funds from ineffective human capital investments that do not result in student achievement gains to investments that are more strategic in nature and that show promise in terms of their effectiveness. This approach requires an examination of state policies, regulations, and legislation that pertain to the public education workforce.

The second approach requires new and sustainable investments in the way teachers and principals are recruited, trained, and compensated. In the current economic situation, this approach may encounter resistance in terms of the costs associated with the investments. However, connecting new and sustainable investments in human capital with larger economic initiatives within a state may diminish such resistance.

While not all of the approaches highlighted in this guide are mature enough to provide us with data regarding their impact, they hold great promise because they are grounded in research, and early data indicate that they are working to improve the education workforce. Many of the strategies and recommendations in this guide are not novel, but the comprehensive approach the guide proposes is. Efforts to improve the education workforce through disconnected, disjointed initiatives have



proven ineffective or not effective enough to justify the investments required. Therefore, the recommendations in this guide are interdependent. That is, in order to successfully develop a high-quality education workforce, governors should employ each of these recommendations rather than taking a piecemeal approach.

Research on effective teaching and school leadership points to three areas of concern in the education workforce: how teachers and principals are recruited into the profession, how teachers and principals are trained and licensed, and how to retain effective teachers and principals once they enter the profession. These three problems serve as the basis for each of the guide's three strategies for states:

1. Selectively recruit prospective teachers to the teaching profession and effective teachers to school leadership positions through more rigorous admissions standards to preparation programs and through investments in compensation models to change market conditions;

2. Improve the preservice training of prospective teachers and principals to ensure that teachers and principals are prepared to improve student achievement; and

3. Work to retain the most effective teachers and principals by developing pay for contribution compensation models; monitoring and improving working conditions; providing teachers and principals with feedback about their effectiveness; and developing data systems that provide states with valuable information about the recruitment and retention of effective teachers and principals as well as about teacher and principal effectiveness.

The guide includes recommendations for state action on each strategy. It includes examples of both cost-neutral strategies and strategies that require new and sustainable investments to provide states with a range of options as they consider improving the education workforce.

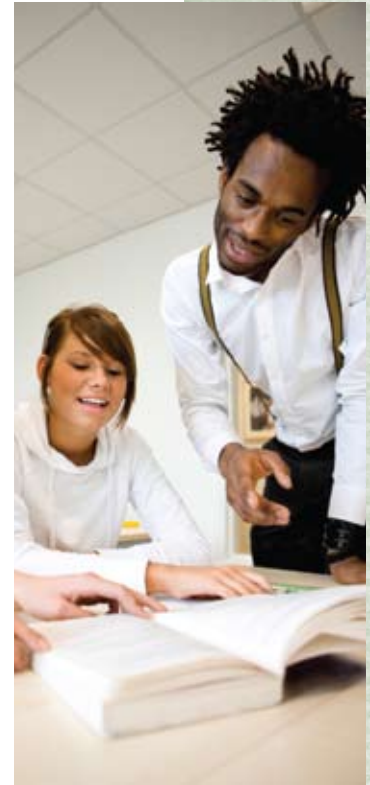


Why Is a Human Capital Strategy Necessary?

Human capital refers to the skills and knowledge of workers. In public education, the quality of human capital has particular significance because the level of skills and breadth of knowledge among workers significantly impacts how much students learn. It also has significance because states provide 46.5 percent of the funds used to support public education.² More than 80 percent of those funds support salaries for public school personnel.³ Despite extraordinary investments in public education employees, students in the United States lag behind their international peers. The United States is now ranked 10th relative to the proportion of students who graduate from high school. U.S. students rank 21st, 25th, and 15th in science, mathematics, and reading, respectively, despite growing investments in preschool education; science, technology, engineering, and mathematics (STEM) education; high school reform; and college preparation.⁴

Research shows that teacher quality is the primary influence on student achievement.⁵ Research also indicates that effective school leaders not only influence student learning, but also have the ability to dramatically improve student achievement.⁶ Because research identifies teachers and principals as the two primary forces behind improving student achievement, professional and financial investments in teachers and principals are essential to not only ensure U.S. students remain competitive internationally, but to close achievement gaps among students in the United States. Consider the following:

- Hispanic and African-American students are typically four grade levels behind their Caucasian peers;⁷
- Only a little more than half of all Hispanics and African-American students graduate from high school;⁸
- The United States ranks eighth among member nations of the Organisation for Economic Co-Operation and Development (OECD) in the size of achievement gaps in mathematics and sixth in the size of achievement gaps in problemsolving;⁹
- Minority students in urban areas are more likely to be taught by novice teachers who may not have the content knowledge to teach the courses assigned to them;¹⁰ and
- Minority students in urban areas are more likely to attend a school led by a principal who is rated by teachers as being “weak.”¹¹



This guide proposes that governors can generate a better return on investments in the education workforce by implementing initiatives and comprehensive policies that influence the professional practices of the workforce. The guide highlights innovative approaches that states, local school districts, and national foundations have undertaken to address human capital challenges in the education workforce. These innovative approaches offer insight into strategies that redirect some human capital funding to initiatives that can ultimately improve not only the achievement of students, but also their international competitiveness.

Although states have made progress in addressing some workforce challenges, the absence of a comprehensive, state-led strategy has resulted in many districts lacking the capacity needed to ensure that all students are taught by effective teachers in schools led by effective principals. This guide proposes a framework of three broad and interdependent strategies that operate collectively to improve the education workforce and ultimately achieve greater gains in student achievement. Included are recommendations for state action as well as examples of the best practices in human capital strategy found in

states, local school districts, and national foundations. States are encouraged to adopt and modify the recommendations depending on a state's specific education workforce needs. Implementation of the strategies in isolation may produce modest gains in student achievement, but they will not produce the broad-scale gains necessary to ensure that all students achieve at higher levels.

Companies, corporations, and institutions all over the world invest not only in their workforce, but also in data systems that provide information about what is effective, what is ineffective, and how to change the trajectory. For governors to build a stronger education workforce and to capitalize on investments made in the workforce, states must be able to decipher what inputs—the investments made in teachers and principals—produce the strongest outputs—namely, improvements in student achievement. To do that will require data systems that link the inputs with the outputs. Without such data systems, states will lack the information necessary to determine which human capital investments are worth investing in and which investments should be discontinued because they do not impact student achievement in meaningful ways.

Why States Must Act Now

Given the growing complexity of the global economy, efforts to remain internationally competitive must address the quality of the public education workforce. Additionally, states are faced with continued disparities in student achievement among minority students and students living in poverty. This issue is particularly acute as students in this country are becoming more diverse. It is important for states to evaluate the way teachers and principals are recruited, trained, and retained to determine if the policies currently in place provide students with access to the most effective and well-trained teachers and principals possible.

The annual teacher turnover rate is currently 16.8 percent.¹² Among principals, the rate is higher. Within a three-year period, more than 50 percent of all principals leave their leadership posts and exit the education profession, move to another school, or accept promotions within a district. There is also an impending barrage of retirements by both teachers and principals in the next 10 to 20 years. It is expected that nearly 95,000 teachers will retire this year alone.¹³ These developments create an imperative for change because the need to attract talented and effective teachers and principals will increase.

According to a recent report commissioned by the global consultancy firm *McKinsey and Company*, what separates the world's top-performing school systems from low-performing ones in the United States is this country's well-documented, comparative inability to attract and retain highly effective teachers. Consider the following trends, which characterize the U.S. education workforce today:

- **The United States has experienced a rapid decline in talent among the new teachers it hires.**

In 1964, one in five new teachers scored in the 90th percentile on their high school achievement tests—only one in 10 new teachers do so today.¹⁴

- **The United States recruits less capable candidates into public education than its global competitors do.**

At the same time that the relative ability of the American teaching workforce has waned, the world's top-performing school systems secure their entire elementary and secondary school workforce from among the top third of their college graduates—for example, the top 5 percent in South Korea, the top 10 percent in Finland, and the top 30 percent in Singapore and Hong Kong.¹⁵



- **The United States employs little selectivity when recruiting teachers and school leaders.**

According to *U.S. News and World Report*, Penn State University's business school, which ranked 43rd in the nation, accepted less than 25 percent of applicants. Meanwhile, Penn State's School of Education, a top 10 program in school administration, accepted 50 percent of applicants for admission. Standards for admission to teacher preparation programs are low or nonexistent as well. Currently, only 15 states have established minimum admissions requirements for individuals seeking a degree in a teacher preparation program. In cases where standards have not been established by states, the responsibility for establishing admissions standards for teacher preparation programs is delegated to postsecondary institutions.

- **Preservice training for both teachers and principals does not focus on student learning.**

In the age of high-stakes accountability, teachers and principals must focus their attention on student learning. Teachers need more training on how to differentiate instruction to meet the needs of a diverse student population. Most teacher preparation programs fail to teach teachers to use data to drive instruction and focus too heavily on pedagogy at the expense of content. Preparation programs frequently narrow their focus on the inputs made to train teachers and ignore ascertaining whether the teachers they produce have the requisite skills to be effective once they are employed.

Furthermore, not all states require teacher candidates to hold a major in the subject they are preparing to teach. Students in rural and urban areas are more likely to be taught by a teacher who is not certified in the subject area he or she has been assigned to teach. In schools with a high concentration of students living in

poverty, 34 percent of the classes are taught by teachers who are not certified to teach in the subject they have been assigned, compared to 19 percent in a school with a lower concentration of students living in poverty.¹⁶

For principals, preparation programs also fall short.¹⁷ An evaluation by the Southern Regional Education Board found that principal preparation programs do not prepare principals to recognize effective instruction, a skill necessary for improving student achievement.¹⁸ Additionally, internship experiences for principals are not closely supervised by university faculty and do not require aspiring principals to lead school improvement efforts as preparation for the principalship.

- **Teacher and principal turnover rates are high.**

Currently, the annual average for teacher turnover is 16.8 percent.¹⁹ This rate is nearly double in urban and rural districts in schools labeled "hard-to-staff." While not all teacher turnover is a negative occurrence, it is costly for states—both in terms of employee replacement costs, but also costs associated with lower student achievement among students who are taught by inexperienced teachers who might replace experienced teachers. This problem is especially acute in urban or rural hard-to-staff schools where students are more likely to be taught by inexperienced teachers who may not be licensed in the content area they teach.

Among principals, the turnover rate is over 50 percent in the first three years.²⁰ While teachers create a natural pipeline for principals, more than 40 percent of currently employed principals will retire by 2010, further adding to concerns about filling school leadership vacancies.

A Framework for Building a High-Quality Education Workforce

To implement a human capital approach to improving the effectiveness of the K-12 education workforce, states should take the following actions:

1. Selectively recruit prospective teachers and principals to the profession;
2. Improve the preservice training of prospective teachers and principals; and
3. Work to retain the most effective teachers and principals.

Selectively Recruit Prospective Teachers and Principals to the Profession

Many states have tried to address improving the selectivity of prospective teachers by making the requirements for licensure more rigorous, only to find that more rigorous licensure requirements do not necessarily improve selectivity. State efforts to improve selectivity should not only focus on creating more rigor in the preparation and licensure process, they also must create the market conditions that make the additional, more rigorous licensure requirements worth a prospective teacher's or principal's investment of time and money. Creating such market conditions centers around both improving the compensation teachers and principals receive and creating monetary incentives for the contributions teachers and principals make to student achievement. Additionally, creating favorable market conditions includes the improvement of working conditions in schools. States should also consider making regulatory changes to isolate the factors associated with preservice training and licensure that research indicates impact student achievement.

Economic market theory tells us that for an individual to be motivated to pursue a career in any profession, the profession must be more attractive than the available alternatives.²¹ In most cases, the education profession does not present an attractive alternative to other professions. In the case of teachers, salaries are low compared to those earned by college graduates in other professions. In addition, the working conditions are less than desirable. In working conditions surveys, teachers report feeling unsafe, unsupported, and undervalued—all important problems that keep individuals from thriving professionally.²² Ultimately, the nation's best and brightest (and potentially the most effective teachers) are lost to other professions where the pay is higher and the working conditions positively influence professional satisfaction.²³



In an effort to recruit a more selective teaching workforce, **Teach for America (TFA)** was developed. The initial idea for TFA was proposed in a graduate student's thesis and was undergirded by the theory that graduates of the country's most selective postsecondary institutions could be enticed to the teaching profession if they could become part of a highly selective corps of educators. Since 1990, TFA has selectively recruited graduates from some of the country's most selective postsecondary institutions, including Harvard, Yale, and Duke universities. In 2008, more than 24,000 college graduates applied for a TFA job, but only 3,700 were hired.

TFA looks at three criteria to select corps members—leadership skills, a person's tenacity in a challenging situation and grade point average (GPA). TFA has commissioned several studies of corps members to evaluate the impact of their service on student achievement. Although the studies overall have indicated that the impact is modest, some of the findings are important because they point to statistically significant differences in the achievement of students taught by TFA corps members. In one study, TFA teachers outperformed certified and veteran mathematics teachers in their ability to improve student achievement in one school year.²⁴ In the same study, TFA teachers were found to be more effective than traditional teachers when end-of-course exam data were analyzed. Not only were end-of-course scores higher, students of TFA teachers with less experience outperformed their peers taught by traditionally trained teachers with more teaching experience.²⁵

Although the program is designed to employ new graduates as teachers for two years, some TFA teachers stay in the profession longer. Recently, TFA began to use its pool of teachers to identify and train school leaders. The organization's School Leadership Initiative capitalizes on a TFA teacher's experiences in urban and rural school

districts by training them in conjunction with districts to become school leaders. Currently, 360 TFA alumni serve as school principals across the country.

The **Chicago Teaching Fellows** program selectively recruits college graduates to teach in Chicago's public schools. Potential fellows must have at least a 3.0 GPA to be eligible to apply. Fellows in this program are not certified teachers, but become certified while teaching in a public school. The fellowship provides a preservice institute to prepare fellows for their teaching assignment as well as financial assistance to defray the costs of the coursework required to earn state certification. The program's primary objective is to selectively recruit college graduates from various backgrounds to diversify the workforce in the city's schools. Dan Goldhaber indicates in his 2008 report for the Center for American Progress that much of the improvement in Illinois schools is the result of Chicago's efforts to more selectively hire teachers.²⁶

The **Boston Teacher Residency** program trains new teachers in much the same way that medical students are trained through residencies. Participants in the Boston Teacher Residency program receive a salary during a full year of training to become a teacher. They also are assigned a mentor teacher in the school in which they are placed. Residents receive an \$11,100 stipend, plus a \$10,000 loan to cover most of tuition. The majority of residents commit to three years in a Boston public school classroom following the residency. For every year graduates work in the district, one-third of their student loan is forgiven.

States should consider offering local education agencies startup grants to pilot teacher preparation academies that use selective criteria for admissions and provide intense preservice training to prospective teachers.

As is the case in most professions, determining who will be an effective teacher is relatively difficult.²⁷ However, there are some factors that may help determine if a teacher will be effective or not. Factors such as a prospective teacher's SAT or ACT score, the selectivity of the postsecondary institution from which a teacher graduates, and a teacher's GPA upon graduation have a lower and less consistent impact on student achievement, but to varying degrees they do matter.

States should consider using their licensure authority to adopt minimum standards for admission to traditional teacher preparation programs and alternative teacher preparation programs to improve selectivity. Minimum standards could include minimum grade point averages and SAT or ACT scores for admission to teacher preparation programs. These efforts should be coupled with efforts to also improve the market conditions that will make the education profession a more attractive professional option, such as pay for contribution and the improvement of working conditions.

The decision to enter a principal preparation program is largely a matter of personal choice. Many critics of principal preparation programs cite self-selection into the programs as one of the problems that reduce the selectivity of preparation programs and diminish the overall quality of school leaders.²⁸

Determining who will be an effective school principal is slightly easier than determining who will be an effective teacher because the competenciesⁱ required to be an effective teacher are similar to those required to be an effective school principal.

i. Competencies are defined as "consistent patterns of thinking, feeling, acting, and speaking." The common competencies referred to for both effective teachers and principals are relative to the context of a turnaround school—a school in which conditions are dire both academically and culturally. See: Lucy Steiner, Emily Hassel, and Bryan Hassel, *School Turnaround Leaders: Competencies for Success and School Turnaround Teachers: Competencies for Success* (Chapel Hill, NC: Public Impact, 2008).

When Attracting Teachers to the Profession, Is There a Difference Between a Qualified Teacher and an Effective Teacher?

Qualifications

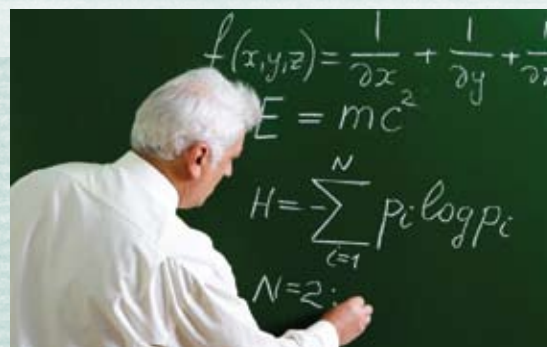
Since the federal No Child Left Behind (NCLB) Act established its definition of a "highly qualified" teacher, some confusion has arisen over what distinguishes a highly qualified teacher from a highly effective one. NCLB's highly qualified teacher provision and most states' teacher recruitment and hiring policies focus exclusively on the qualifications of teacher applicants (e.g., scores on certification and licensure exams and degrees earned). Unfortunately, research has shown that these qualification indicators are an inaccurate predictor of a teacher's actual effectiveness.

Effectiveness

A large body of research indicates that some teachers are more effective at raising student achievement than others. As a result, teacher effectiveness is generally defined as the measurable amount an individual educator improves student performance. Although value-added learning gains on assessments can serve as one indicator of effectiveness, states should also consider other measures when determining the effectiveness of a teacher.

What Should States Focus On: Qualifications or Effectiveness?

States can benefit from using both approaches: A focus on candidates' qualifications can serve as a baseline because they provide the only available information principals have when hiring new teachers without work experience. Because qualifications are not sufficient to ensure effectiveness, states should enact workforce policies that enable principals to evaluate an educator's effectiveness on multiple measures when making evaluation and promotion decisions after a teacher has been hired.



pal. A prospective principal's teaching record can be used to draw some conclusions regarding potential effectiveness. Using this information, states and school districts can improve the selectivity of principal preparation programs by developing partnerships with universities that identify educators who have the potential to be effective school principals, thereby eliminating self-selection into these programs. Some states and school districts already have initiated such partnerships with postsecondary institutions, while others have partnered with philanthropic or nonprofit organizations, such as **New Leaders for New Schools**, to selectively admit and train prospective school principals.

Launched in 2000, New Leaders for New Schools hand-selects all of its participants, and the program maintains high standards for applicants. The program is highly selective. Since its inception, the program has received 6,000 applications and has trained 568 principals. The program requires applicants to submit various documents that demonstrate a track record of improving student performance as well as a mastery of instructional techniques that are effective in helping students be more successful. Principals trained by New Leaders for New Schools lead schools where the average percent of low-income students is 76 percent.²⁹ Independently collected data indicate that New Leaders for New Schools principals lead schools where graduation rates are higher than schools in the same school district led by a principal not trained by New Leaders for New Schools.³⁰ Data also indicate that in two years, New Leaders for New Schools principals led schools where significant achievement gains were made.³¹

In **Illinois**, the Chicago Public School system has initiated efforts to recruit teachers for principalships more selectively through a partnership with the University of Illinois at Chicago. This partnership grew out of a systemwide effort to close achievement gaps and turn around struggling schools. The district wanted principals whose preparation was rigorous and focused on the unique challenges of improving student achieve-

ment in urban schools. Thus, it partnered with the University of Illinois at Chicago to reorganize the university's principal preparation program. Under the partnership, the university changed its principal preparation program from a graduate program to a doctoral program in urban education leadership. The program includes three years of site-based coaching and three years of field assessment work designed to prepare participants for challenging leadership posts in public schools where student achievement is low.

States should consider offering local education agencies startup grants to pilot principal preparation academies that use selective criteria for admission and provide intense internship opportunities to prospective principals.

States should use their licensure authority to require traditional, university-based principal preparation programs and leadership preparation programs that have the authority to license principals to forge partnerships with school districts to determine which applicants should be admitted to principal preparation programs. Admissions standards should be high and require applicants to demonstrate a track record of improving student achievement as a classroom teacher as part of the admissions requirements.

Alternate Licensure

Alternate licensure was designed to allow mid-career professionals with professional experience and extensive content knowledge to earn a license to teach without completing a traditional teacher preparation program. Currently, 48 states offer some type of alternate licensure for prospective teachers; however, many researchers and policymakers question whether states' alternate routes to licensure represent a genuine alternative to traditional teacher preparation programs.³² The National Council on Teacher Quality (NCTQ) indicates that only six states offer "genuine and responsible" alternate routes to licensure for teachers. NCTQ recommends that states improve their alternate licensure routes by:

- Setting selective admissions criteria, such as accepting students with a 2.75 GPA;
- Providing coursework that is relevant to the needs of the prospective teacher;
- Providing a program of accelerated study that can be completed in two years;
- Providing mentoring for new alternatively licensed teachers; and
- Allowing alternatively licensed teachers to demonstrate subject matter knowledge by taking an approved test.³³

In terms of determining the effectiveness of teachers who earn licensure through an alternate route, the findings are inconclusive. Some studies have found alternately licensed teachers to be effective in improving student achievement while other studies have found the opposite to be true. Given the current economic downturn, alternate licensure may prove to be a viable solution to resolving the shortages in the teacher workforce and an option for individuals who have lost jobs in other professions. This could be particularly effective for career switchers who have content knowledge in science, technology, and mathematics—areas where teacher shortages are severe. However, states should evaluate alternate licensure regulations to ensure that those regulations represent a genuine alternate route to licensure and that those regulations provide prospective teachers with the requisite skills necessary to be an effective classroom teacher.

Connecticut's alternative licensure route is one of the country's oldest and most highly regarded.³⁴ Alternate Route to Certification (ARC) involves a multistep process that includes a student teaching assignment. Connecticut currently offers two different types of ARC programs. The original model is run for approximately nine weeks on a full-time basis during the summer and is referred to as the ARC I program. In 2000, the ARC II Program was introduced and includes part-time weekend study throughout the school year. Both programs include pedagogy in the

content area the teacher will teach, and the curriculum focuses on both state-mandated education topics and other areas that are especially important for new teachers making a career change into education. The coursework is centered on the Connecticut curriculum goals and standards frameworks. The program also offers professional development to graduates in the first and second years of teaching.

States should evaluate their alternate licensure routes for teachers to determine whether the routes are responsible and genuinely alternate, using the guidelines provided by the National Council on Teacher Quality. As with traditional, university-based teacher preparation programs, alternative teacher preparation programs should selectively admit candidates to programs and provide an appropriate balance of content coursework and professional coursework.



Improve Preservice Training for Prospective Teachers and Principals and Reform Licensure Regulations

Teaching is virtually the only profession in which first-year professionals must meet the same professional objectives as their more experienced colleagues. New teachers are responsible for managing a classroom of students and teaching a prescribed, fast-paced curriculum, often with little supervision or mentoring. They are held accountable for their students' performance to varying degrees, yet they receive little to no feedback on their instructional practice. Not only does this professional anomaly make teaching a daunting task, but it ignores the conventional wisdom that guides most all professions—that those new to a profession need mentoring, guidance, and regular feedback to become better professionals.

One of the primary concerns regarding teacher preparation program is the overemphasis on professional coursework in the curriculum. Research indicates that although professional coursework is important for prospective teach-



ers, their content knowledge is the most important factor in improving student achievement. Research also indicates that variances in teacher effectiveness are most often attributed to lack of content knowledge.

Many states have taken steps to address this concern. For example, **New Jersey** has placed limits on professional coursework in teacher preparation programs to ensure that prospective teachers spend more time in courses that are content-based and less time in professional courses.

States should use their licensing authority to require teacher preparation programs to develop a curriculum that appropriately balances professional and content-specific coursework to better prepare teachers for classroom teaching.

Overall, studies that focus on using state licensure examination scores as a predictive measure of whether a teacher will be effective cite a weak predictive value; however, there is some relationship. Researchers suggest that rather than rely on licensure examination scores to predict teacher effectiveness, states should use test scores and requirements for passing licensure examinations as a baseline that indicates to school districts that a teacher is of entry-level quality.³⁵ Currently, states give teachers from two to five years to pass licensure examinations, and only 22 states require teachers to pass licensure tests before they are hired or within the first year of teaching.

States should use their licensing authority to require teachers to pass licensure examinations within one year of hire to provide school districts with baseline information about the entry-level quality of a teacher.

The literature on accountability and teacher preparation suggests that states should hold teacher and principal preparation programs accountable for the performance of the graduates they produce. Some states have acted on

this recommendation. **Alabama** and **Louisiana**, for example, base approval of teacher preparation programs on the quality of their graduates. Given the limited number of states that have data systems robust enough to implement similar accountability measures for teacher preparation programs, this approach would require states to make additional investments in state data systems. These investments are necessary to link teachers and principals with student achievement data to the teacher and principal preparation programs from which they graduated. **Louisiana, Mississippi, Ohio, and Tennessee** have created systems that link teacher effectiveness data with teacher and principal preparation programs. The states not only collect and analyze these data, but they share the data with postsecondary institutions as a means to improve the quality of teacher and principal preparation programs.

Overall, state efforts to change teacher and principal preparation programs in universities have not fared well for a variety of reasons. While states are encouraged to initiate and continue dialogue with institutions of higher education regarding the quality and content of teacher and principal preparation programs, one way to potentially expedite changes in preparation programs lies in a state's licensure authority. States should consider closely examining their licensure regulations for both teachers and principals to determine whether changes in licensure regulations could drive the much-needed changes in preparation programs. This approach poses some challenges. However, several states—**Georgia, Kentucky, and Tennessee**—have recently approached improving principal preparation by leveraging the state's licensing authority to sunset all principal preparation programs and require programs to reapply for approval based on a new set of criteria that include specific requirements for internship experiences and coursework. **Louisiana** also has made changes to the licensure requirements for both teachers and principals as a means to drive change in teacher and principal preparation programs.

Most state licensure requirements for principals are based on the individual attributes of prospective principals seeking licensure rather than based on a competency framework that is student learning focused.³⁶ Just as important as designing a student learning focused framework is changing licensure requirements to require that prospective principals demonstrate mastery of skills and competencies, as opposed to the current approach to licensure that requires only the acquisition of knowledge and credentials.³⁷

To demonstrate the mastery of skills and competencies, internships for prospective principals must focus on what principals need to know and do to improve student achievement. They also must provide a prospective principal with genuine opportunities to practice and lead efforts to improve student achievement. Prospective principals should be placed into internships in schools where active efforts are underway to improve student learning and the school principal is a strong instructional leader and an effective manager of human capital. In addition, internships must be supervised by university or preparation program personnel to ensure that prospective principals are able to access genuine opportunities to lead efforts to improve student achievement. They also must provide prospective principals with regular feedback on how to improve both their instructional leadership and the management of human capital.

With assistance from the Wallace Foundation, **Louisiana** recently changed its internship experiences for prospective principals. Degree programs are now aligned with the Louisiana State Standards for School Leaders and national accreditation standards that focus on teaching and learning and school improvement. The graduate programs that prepare educators for leadership positions in Louisiana now focus on school improvement and place greater emphasis on research-based practices that have demonstrated their effectiveness in improving student achievement.



States can look to **Tennessee** as an example of overhauling principal preparation and licensure. The state board of education recently adopted the Tennessee Learning-Centered Leadership Policy. The policy was developed in response to the state's desire to improve the quality of principals by redesigning licensing for school administrators. Tennessee now has specific guidelines for what principal internships should include. Among the state's requirements are:

- Mentors for prospective principals;
- Opportunities to work with diverse students, teachers, parents, and communities;
- Ongoing supervision by faculty;
- Rigorous formative and summative standards-based evaluations using reliable, valid standardized instruments and procedures; and
- Candidate defense of a practicum project.

Beginning in September 2009, the Tennessee Board of Education will only license principals who have completed principal training at state-board approved instructional leadership programs. Programs must be approved by the state board of education under the guidelines provided in the policy. The policy includes provisions that formalize district and university partnerships to determine who should gain admission into a principal preparation program. Additionally, the policy stipulates that preparation pro-

grams be more rigorous, more selective, and aligned with new standards the board has adopted regarding instructional leadership. Programs also are required to develop coherent standards that are aligned with state accountability and evaluation requirements.

Kentucky has recently made major changes to its licensure regulations that require all university principal preparation programs to reapply for accreditation. Under the new requirements, all preparation programs must form partnerships with school districts. In addition, all newly redesigned principal preparation programs must be reviewed by practitioners to determine whether they should be accredited by the state's licensing board.

To improve internship experiences for prospective principals, states can require (through licensing authority) that prospective principals spend one year working full-time in an internship or clinical experience. States should push principal preparation programs to place interns into schools where active efforts are underway to improve student learning and where a strong principal is leading that effort. Equally important, states should establish guidelines for university or preparation program supervision of the internship to ensure that prospective principals benefit from mentoring, supervision, and regular feedback from university or preparation program staff.

States can use their licensing authority to push postsecondary institutions to redesign principal preparation programs to ensure that programs are focused on student learning and use national standards, such as the Interstate School Leaders Licensure Consortium standards (ISLLC), to guide course content and internship experiences.ⁱⁱ

ii. The Interstate School Leaders Licensure Consortium (ISLLC) standards detail the knowledge, skills, abilities, and competencies a school principal should demonstrate in their professional practice. For additional information, visit the Council of Chief State School Officers Web site at www.ccsso.org.

Work to Retain the Most Effective Teachers and Principals

Once a teacher or principal enters into the profession and demonstrates effectiveness, it is in the state's best interest to work to keep that individual if they are an effective teacher or principal. It is important to note that not all teacher turnover is a negative occurrence. When ineffective teachers exit the profession, students benefit because an ineffective teacher can cost a student up to one school year's loss of learning.³⁸ Teacher experience is one factor that most positively influences student achievement,³⁹ but to varying degrees.ⁱⁱⁱ Annually, nearly 17 percent of all teachers leave the classroom.⁴⁰ In hard-to-staff schools, the teacher turnover rate is estimated at more than 29 percent.⁴¹ Additionally, more than half of all principals leave the school where they are employed within three years of hire.⁴²

Pay Teachers for Contributions

According to the American Federation of Teachers (AFT), salaries for first-year teachers (adjusted for inflation) rose just 3.3 percent from 1995 to 2005.⁴³ During the same 10-year period, first-year salary offers to students graduating with bachelor's degrees in chemistry, computer science, engineering, technology, or mathematics climbed an average of 18.8 percent.⁴⁴ For policymakers to take advantage of the impending changes in the composition of the education workforce, states should consider restructuring compensation models to make them more attractive to prospective teachers. Most teacher salary schedules reward teachers for their time in the classroom and additional coursework and degree attainment. While experience does influence a teacher's effectiveness, the acquisition of additional degrees does not.⁴⁵ Compensation does not merely refer

iii. More teaching experience beyond teaching years 3-5 does not seem to improve student achievement. See: D. Goldhaber and M. Hansen, "Assessing the Potential of Using Value-Added Estimates of Teacher Job Performance for Making Tenure Decisions," *Policy Brief 3* (Washington, DC: Urban Institute, November 2008).

to salaries; it can also include benefits, retirement options, student loan repayment, and tuition reimbursement.

Some states have undertaken initiatives to make compensation for teachers more competitive by offering teachers pay for their contributions. The term "pay for contribution" means investing more in teachers, through salaries, benefits, and bonuses for measurable contributions to student achievement.⁴⁶ Currently, 12 states pay teachers for their contributions, and among these, 4 use teacher effectiveness as the primary factor in determining the contributions a teacher makes. States should consider using teacher effectiveness as the primary factor in determining the contributions a teacher makes to target efforts to retain teachers who are effective and make contributions to student learning.⁴⁷ However, states should also consider other factors when determining the contributions a teacher makes to student learning, such as teacher attendance, professional advancement via a career ladder, and schoolwide student achievement gains.

Much of the research on teacher compensation indicates that pay for contribution initiatives are more successful in improving student outcomes when the initiatives include a varied approach to compensating teachers for their contributions.⁴⁸ A 2007 guide released by the NGA Center for Best Practices titled *Improving Teaching Through Pay for Contribution* highlighted several different approaches for paying teachers for their contributions. The guide suggests that governors should consider one or more of the following compensation policies:

- Performance pay: significant bonus pay to teachers for gains in student learning results;
- Hard-to-staff school pay: additional compensation for teachers who work in high-poverty schools, and very significant performance rewards to those who contribute more to growth in student learning in these schools;

- Skill shortage pay: additional compensation to attract teachers in shortage areas, such as math, science, and special education, and very significant performance rewards to those who contribute more to student learning gains in the shortage areas;
- Advanced role pay: additional compensation for advanced or “master” teaching roles—and teachers capable of filling them—that contribute measurably more to student learning;
- Skill and knowledge pay: additional compensation for specific skills that lead to proven, measurable gains in student learning, particularly in states where teacher-level assessment of student gains has not been implemented;
- Limited advanced degree pay: additional compensation for holders of advanced degrees only in fields, such as secondary mathematics, where such degrees have a proven effect on student learning; and
- Retention pay: significant one-time pay boosts after the early years of teaching experience to retain higher performers.⁴⁹

Pay for contribution has received mixed reviews from the local school districts and states that have tried this approach. Some question whether the gains in student achievement are sufficient



to justify the cost of such initiatives. There is lingering resistance to embracing pay for contribution initiatives among teacher unions and some professional organizations. The resistance centers around tying teacher compensation to a limited set of student outcomes, such as end-of-grade and end-of-course test scores. There is also the issue of subjectivity, which is of greater concern in pay for contribution plans that use multiple measures of teacher effectiveness, some of which are not standardized but are open to interpretation (such as classroom observations). Increasingly, unions are becoming more supportive of pay for contribution initiatives that include provisions that allow teachers to assume additional responsibilities as the basis for compensation. Notably, **Minnesota’s** and **Denver, Colorado’s**, pay for contributions initiatives have the support of teacher unions.

Pay for contribution compensation models are a standard incentive in many other professions.⁵⁰ Research studies of these models in other areas of the workforce indicate that employees perform at higher levels when they are compensated for their accomplishments. Recently, several studies of pay for contribution compensation models in the education sector also have found that compensation tied to contributions do improve performance among teachers. It should be noted that paying employees for performance is not intended to drive improvement, but to support improvement.⁵¹ Some of the examples included in this guide provide bonuses to teachers and principals for their contributions. Bonuses are a step in the right direction toward redesigning compensation. However, states should consider redesigning compensation models, not merely providing bonuses to teachers and principals on single salary pay schedules that do not base compensation on the contributions teachers make. Bonuses are harder to sustain over a period of time because they could be vulnerable when reductions in spending become necessary.⁵² States can consider using the funds awarded on single salary pay schedules to teachers for time in the classroom and additional coursework and degree attain-

ment to fund new, redesigned teacher compensation models that reward teachers for their contributions to improving student achievement.⁵³

In the current economic situation, states considering pay for contribution initiatives will experience resistance because of the costs. States interested in pay for contribution initiatives should consider piloting such initiatives not only because of the cost savings, but to also use the pilot to collect meaningful data that would be necessary to scale such an initiative. Research indicates that the success of a pay for contribution system hinges on the initiative's composition and implementation—two important considerations a pilot project can help states understand more fully. Because it typically takes nine months to two years to build a new compensation model, states also should be prepared to spend a considerable amount of time redesigning teacher compensation models.⁵⁴ The American Recovery and Reinvestment Act of 2009 provides additional funding for the Teacher Incentive Fund (TIF). States can consider applying for TIF funds to fund teacher and principal pay for contributions compensation models.

States can look to Denver, **Colorado's**, Pro Comp as an example of a pay for contribution initiative that underwent extensive piloting before it began operating districtwide. States also can consider partnering with philanthropic groups, as **South Carolina** has done, to begin pay for contribution initiatives as pilots that can eventually be scaled. South Carolina's Teacher Advancement Program (TAP) program is available to all school districts, although not all districts have elected to participate at this time.

In addition, states can consider the approach being looked at in **New York**. The New York City public schools are considering pay for contribution salary models for teachers new to the profession as a way to slowly integrate the practice into the school system's existing compensation structure. Single salary pay schedules typically pay new teachers less in the beginning and more

as they spend more years in the classroom. New York City is proposing to pay new teachers more up front (known as "front loading") to attract a more talented pool of teachers.

In Washington, D.C., the chancellor has proposed allowing teachers to choose between a compensation system that is based on contributions or a system where salaries are determined by a single salary pay schedule that provides fixed increases for a teacher's experience and years of service.

In **South Carolina**, the state's effort to reward teachers for contributions has resulted in student achievement gains in the districts that have elected to participate in TAP. The state funds the TAP program with federal funds available through Titles I and II (specifically, Alternative Technical Assistance Funds); the state's general fund; the Teacher Incentive Fund; local school districts operations funds; and private philanthropy. The program is available to all school districts, and 14 currently participate. TAP provides schools with an organizational framework for teachers to advance professionally via a career ladder. Teachers are compensated for improved student achievement and for taking on additional job responsibilities. Student achievement is measured using value-added measures at both the classroom and school levels.

TAP is showing signs of working, not only to improve student achievement in South Carolina, but also to diminish the harmful effects of teacher turnover. In one middle school, teacher retention improved from 40 percent to 100 percent in six years. National TAP data indicate that teachers in TAP schools outperform their peers in non-TAP schools. In 2005, 40 percent of TAP schools had students achieving more than one standard error above an average year's growth, compared with 32 percent in non-TAP schools.⁵⁵

Minnesota's Q Comp initiative is another example of how teachers might be compensated for the contributions they make in schools. Since its inception in 2005, this voluntary initiative allows

local school districts and unions to create new ways to compensate teachers. Like TAP, Q Comp creates career ladders for teachers to allow them to assume more responsibility to enhance their careers as teaching professionals. At the district level, compensation schedules are redesigned to reward teachers for their contributions. Measurable student achievement goals are established at both the classroom and school levels. If the goals are met, teachers receive additional compensation according to the district's compensation schedule. In addition to gains in student achievement, teachers also receive compensation based on the outcomes of a set of teacher evaluations conducted throughout the school year.

In Denver, Colorado, Pro Comp allows teachers to earn additional compensation not just for their students' performance, but also for professional growth and development, favorable evaluations, and through what the district calls "market incentives." Market incentives reward teachers for teaching in shortage areas and hard-to-serve schools. Hard-to-serve schools are those schools where a large percentage of students receive free and reduced lunch, participate in the Medicaid program, are receiving special education services, and speak English as a second language.

Denver uses multiple measures to determine student growth and performance. Teachers were surveyed prior to the full implementation of Pro Comp to determine how much of their salary should be tied to student performance. After five years of surveys and an extensive pilot program, teachers agreed that one percent of their salary should be tied to student performance. School counselors, librarians, special education teachers, and nurses also are eligible for performance pay under the initiative.

Pay Principals for Contributions

Today's principals have a relentless schedule that frequently involves 70-hour work weeks with a variety of responsibilities.⁵⁶ School principals face

enormous pressure to maintain safety on school property, build consensus around the school's vision and mission, and help teachers be effective in their practice. Their jobs now often depend on their ability to close achievement gaps and improve student achievement.

Yet, in most states that pay teachers for their contributions, principals are not part of the initiative, but it is important to include them.⁵⁷ Pay for contributions for principals meets some of the same resistance pay for contribution initiatives for teachers meets. Critics of pay for contribution for principals cite the unfairness of determining principal effectiveness on a single or limited set of student outcomes. This concern is particularly acute in local school districts where principals have little or no autonomy in their ability to hire and release staff.

One way states can consider compensating principals for their contributions is evaluating a principal's ability to be an effective manager of human capital.⁵⁸ Principals who act as effective managers of human capital are better able to retain effective teachers through the creation of a supportive work culture and efforts to improve the working conditions at a school. Because principals shape the culture of schools and have daily interaction with teachers, they are well positioned to serve as managers of the human capital in a school.

In Texas, the city of Houston provides principals with pay for contribution incentives. Houston's incentive ties principal bonuses to the bonuses paid to teachers in the school. The bonuses are based on student performance. Principal incentives in Houston can provide principals with up to a \$9,000 bonus. Houston does not provide principals with "step" increases in their salaries.^{iv} In Pennsylvania, Pittsburgh provides pay for contributions for principals based partially on

iv. "Step" increases are raises teachers and principals earn on single salary pay schedule for years of service and experience.



student performance. Principals can receive a bonus of up to \$10,000 if they meet school goals for achievement and accept mentoring responsibilities. Pittsburgh provides principals with increases in base pay in addition to the bonuses they receive for student performance.

Compensate Teachers Who Make Contributions in Hard-to-Staff Schools

In other sectors of the workforce, such as the military, medicine, and civil service, employers use market pay to determine the appropriate level of compensation for employees who accept positions that are difficult to fill. For example, the U.S. military provides signing bonuses to new recruits who take jobs that are difficult to fill. These bonuses can total up to \$40,000. Doctors who agree to work in rural areas where doctors are scarce can earn bonuses as well.

In public schools, an abundance of challenging job assignments are found in “hard-to-staff” schools. These schools are typically rural or urban schools with high concentrations of minority students, students who are economically deprived, students who receive special education services,

and students who are English language learners.⁵⁹ These schools often face critical dilemmas in terms of teacher staffing, aside from the general difficulties associated with recruiting teachers to the profession.⁶⁰ Teachers in these schools are often less experienced and less qualified than teachers in suburban areas.⁶¹ In fact, students in hard-to-staff schools are more likely to be taught by a teacher who is not certified to teach in the subject area they are assigned to teach.⁶² In hard-to-staff schools, the variations in teacher quality and teacher effectiveness have a more profound effect on student achievement.⁶³

Hard-to-staff schools require a distinct set of skills—skills that teacher preparation programs largely ignore.⁶⁴ Students in hard-to-staff schools require a teacher with strong content knowledge as well as a strong skill set related to effectively remediating students who are behind academically. They require teachers who are trained to handle the myriad of challenges students experience both academically and socially. Teachers in hard-to-staff schools need strong mentorship in the first three years of teaching in a hard-to-staff school.⁶⁵ They also require professional development that is school-based, continuous, and



focused on the achievement needs of students.⁶⁶ Teachers in all schools need to use data to drive instruction. In hard-to-staff schools, this need is more acute as students are frequently behind academically and require regular assessments to determine whether the remedial interventions being tried are working.

It is estimated that to attract teachers to hard-to-staff schools, districts must be willing to pay a 20 to 50 percent premium.⁶⁷ Additional compensation for teaching in a hard-to-staff school should include compensation for the contributions a teacher makes toward improving student achievement.⁶⁸ However, some attempts at providing teachers with additional compensation to teach in hard-to-staff schools have proven to be ineffective when there is a singular focus on salaries only. A singular focus on salary will not be enough to retain effective teachers in hard-to-staff schools because data on working conditions indicate that teachers will not remain in schools where the school leadership is weak and working conditions are poor and not improving over time.⁶⁹

California provides a package that includes a \$20,000 bonus payable over four years to teachers who teach in hard-to-staff schools and earn National Board Certification. **Mississippi** provides teachers in hard-to-staff schools with scholarships toward graduate degrees, low-cost housing, special interest rates on home loans, and assistance with moving expenses. In **Hawaii**, state lawmakers enacted the Felix Response Plan (FRP) to provide additional compensation and incentives to teachers who work in hard-to-staff schools. FRP includes relocation and retention bonuses for teachers who agree to continue working in the hard-to-staff schools in which they are already assigned. In **Chattanooga, Tennessee**, the district offers a package of incentives to teachers who agree to work in hard-to-staff schools. The incentives include tuition assistance for teachers pursuing a master's degree, a loan for the purchase of a home near certain schools in the district, an annual bonus, and an additional bonus tied to student performance.

New York City and the **New York** Department of Education have collaborated to create the Teachers of Tomorrow Program to recruit certified teachers to hard-to-staff schools. As an incentive to teach in these schools, teachers can qualify for an annual supplement (renewable for up to four years) of \$3,400. Loan forgiveness and tuition reimbursement are available through this program as well.

In **Florida**, Miami-Dade County teachers who work in hard-to-staff schools are paid an additional 20 percent of their base pay. The additional compensation does require teachers to work a longer day and to work two additional weeks each school year. Teachers who work in hard-to-staff schools in the county also attend additional professional development courses specific to the needs of students in hard-to-staff schools.

Compensate Principals Who Make Contributions in Hard-to-Staff Schools

Initiatives to compensate principals who take on challenging leadership assignments in hard-to-staff schools are less common than ones for teachers. Principals in hard-to-staff schools typically find that leading a school where performance is low is particularly difficult. In schools where chronic low performance is the norm, principals must work not only to improve student achievement but also to change the school culture. Changing the culture of any organization is difficult, and changing the culture of schools is particularly hard because of the high turnover of teachers in hard-to-staff schools.⁷⁰ Culture in schools is shaped by the leader and by the faculty. The faculty must adopt the principal's view of how to shape school culture for lasting changes in school culture to occur.

Arkansas pays a bonus of up to \$25,000 to principals who complete the state's Master School Principal program and agree to work in a hard-to-staff school. Hard-to-staff schools in Arkansas are schools in need of improvement because of poor student achievement or those schools considered to be in academic distress.

Pay Teachers for Contributions in Shortage Areas

Currently, only 28 states provide teachers with pay differentials to teach in shortage areas, but this is another way to attract teachers to the profession. Traditional areas of shortage are in mathematics and science. With a growing number of students identified for special education, teachers certified to teach in this area also are in high demand. Higher compensation for teachers with high-needs certifications alone is not sufficient because shortages still exist. Higher compensation for teachers in shortage areas should be part of a compensation model that also pays teachers for the contributions they make toward improvements in student achievement, if states are to sway graduates with degrees in science and mathematics to the teaching profession.

Virginia's Middle School Teacher Corps provides experienced mathematics teachers with the opportunity to earn additional money teaching mathematics in middle schools in Virginia where mathematics achievement is below the state's standard or below the annual measurable objectives (AMO) for NCLB. The Middle School Teacher Corps accomplishes three objectives: It reinforces the quality of mathematics instruction in middle schools; ensures that students receive a solid foundation in mathematics as they prepare for high school; and provides support for middle schools to recruit and retain more qualified mathematics teachers. To be eligible, teachers must meet six criteria that include a focus on experience and a proven record of success in teaching mathematics. Eligible teachers must hold a bachelor's degree or a minor in mathematics. School districts can offer teachers from outside the school district up to a \$10,000 salary differential if they are accepted into the corps. Teachers already employed in a hard-to-staff middle school can earn a salary differential of up to \$5,000.⁷¹

States should consider a pay for contribution initiative for both teachers and principals. As an alternative for requesting new funding for a statewide initiative, states can consider piloting a pay for contribution initiative for a limited number of school districts. Funding for pilots should include funding for long-term data collection to ensure that decisions made regarding scaling pilots or making changes to pilots are made with data. States can also consider making participation in pay for contribution compensation models optional or offering a pay for contribution compensation model to teachers new to the profession as a way to attract more teachers to the profession.

States should consider compensating principals based on their ability to be effective managers of human capital. States can evaluate a principal's effective human capital management by reviewing teacher retention data and a principal's efforts to improve working conditions for teachers.

Pay for contribution initiatives should include additional compensation for teachers and principals who accept job assignments and make contributions to student achievement in hard-to-staff schools and for teachers who teach in shortage areas.

States should consider redesigning teacher compensation models as opposed to tying bonuses to single salary pay schedules that reward time in the classroom and additional coursework and degree attainment.

Build State Initiatives That Provide Teachers with Career Advancement Opportunities within the Classroom

Teachers do not have the kinds of professional advancement opportunities that employees in other sectors of the economy enjoy. Single salary pay schedules reward teachers for the number of years they have been teaching, not for their experience or expertise. In most school districts, the reward for effective teaching is being permitted to teach stronger students where class sizes are typically lower. Most opportunities to advance professionally are found outside the classroom. The most obvious choice for teachers who are looking to advance professionally is to pursue a principalship or to work in a central office as a specialist or coordinator; however, these choices are not viable options for individuals who want to continue their work in the classroom working directly with students.

One way to help teachers advance in the profession without leaving the classroom is to provide advancement via a career ladder. In districts where career ladders are used, teachers earn additional compensation for assuming additional roles and responsibilities and demonstrating their effectiveness. Career ladders allow teachers to grow professionally while keeping their jobs. The added responsibilities often include leadership roles assigned by the principal. This approach to retaining effective teachers provides a reciprocal benefit for both principals

and school districts. Research on shared leadership indicates that schools that endeavor to improve continuously also have principals who share leadership responsibilities with other school faculty.⁷² Sharing leadership gives principals the opportunity to nurture teachers who desire to take on leadership roles in and outside of the school. Additionally, it provides principals with assistance leading instruction. Research on this topic indicates that schools often waste their greatest resource, teacher-leaders.

Arizona implemented a career ladder in 1985 as a way to retain effective teachers. Currently, 28 districts in the state participate in the initiative. Since its inception, Arizona has independently evaluated the initiative to determine whether it has resulted in student achievement gains. Independent evaluators reported to the Arizona Department of Education that students in schools with career ladders achieved at higher rates than those in schools with no career ladders.⁷³

Arizona's initiative allows teachers to earn additional compensation by demonstrating increasingly higher levels of performance based on student achievement and instructional performance. They also earn additional compensation when they assume more instructional responsibilities. As teachers move up the ladder, they become mentors and provide professional development within the district. Districts develop their own career ladders and determine the criteria for a teacher to advance.

Louisiana has not formally invested in a career ladder for teachers but has undertaken the challenge of providing teachers with opportunities to become teacher-leaders within their school and district through its Louisiana Educational Leaders Network (LELN). The program consists of one year of professional development that culminates in a teacher receiving a Teacher Leader Endorsement from the state. The program provides teachers with access to professional development specifically designed to increase leadership capacity within Louisiana's schools.

Tiered licensure is similar to a career ladder and allows teachers and principals to earn more advanced licenses when they demonstrate mastery of certain professional standards, which vary depending on state policies. New Mexico has a three-tier licensing structure for teachers. A Tier I license is a provisional license only valid for three to five years. To move to Tier II, a teacher must submit a professional development dossier that demonstrates that they are meeting the specified competencies. To earn a Tier III license, teachers must have a master's degree and must demonstrate through the submission of a professional development dossier (PDD) that they are meeting the competencies for Tier III licensure. The state Department of Education is responsible for reviewing the PDD.

Tennessee recently adopted a four-tier licensing structure as part of a total revision of licensing for principals. Principals can now earn an “exemplary leadership license” with the approval of the district superintendent and the state Department of Education-appointed leadership council.

States should consider creating career ladders for teachers and principals. Career ladders should be a component of pay for contribution compensation models.

Evaluate Teachers and Principals and Their Effectiveness

Most employees in the workforce are evaluated annually by their employer. In many fields, this evaluation determines whether an employee gets a raise and in some cases, determines whether an employee is terminated. In public education, annual evaluations are not a standard professional practice. In fact, only 14 states require that teachers be evaluated annually. Twenty-two states do not require a classroom observation as part of a teacher's evaluation. Both annual and periodic evaluations conducted throughout the school year are necessary to not only monitor a teacher's instructional practice, but also to pro-

vide valuable information about how a principal can help a teacher become more effective. They also help principals identify the professional development needs of a teacher. In addition to requiring annual and periodic evaluations, states should also focus on deciding what is actually evaluated. Research indicates that teachers should be evaluated partly or entirely based on evidence that students have learned what has been taught. Evaluation is also an important component of pay for contribution initiatives because they require development of systems to measure the contributions a teacher or principal is able to make toward improving student achievement.⁷⁴

There is no perfect measure of teacher effectiveness. However, one way to determine the contributions a teacher makes to a student's achievement is to use value-added measures.⁷⁵ Value-added assessments measure a student's academic growth over a period of time (usually from the beginning to the end of the school year). Being able to measure teacher effectiveness is essential for states looking for ways to retain effective teachers and principals. Evaluations of teachers and principals should include other measures as well, such as classroom observations for teachers and





human capital management objectives for principals such as improving teacher retention and working conditions.

Only a few states use value-added measures to evaluate teacher effectiveness. For states to develop value-added measures requires the production and maintenance of a longitudinal data system. The Data Quality Campaign (DQC) provides guidance about elements needed in a data system to implement value-added measures. These include:

- A unique identifier for each student;
- The ability for the database to match students and their achievement from year to year; and
- The ability to match students and their achievement year to year with teachers.

Only 15 states now have longitudinal databases that include all three elements. The element that states are least likely to have is the identifier for teachers.

Currently under NCLB, states are not permitted to use value-added measures for the purpose of determining whether students and schools reach annual measurable objectives. However, Tennessee received permission from the U.S. Department of Education to pilot the use of value-added measures for NCLB in November 2005. School-level data are used primarily to change instruction to improve student progress. Principals also can use the data in making strategic decisions about what professional development teachers need. Tennessee has been using value-added measures since 1992 and is considered a national leader in using them to track student progress and teacher effectiveness.

Florida evaluates teacher and principal effectiveness based on evidence of student learning. Financial incentives are built into the evaluation system known as the Merit Award Program for Instructional Personnel and School-Based Administrators. School districts develop Merit Award Program criteria annually, with guidance from statute. The amount of the salary supplement that teachers and principals can receive under this program varies depending on the district, but it must be at least 5 percent and cannot exceed 10 percent. The Florida legislature, not localities, funds the salary supplements. Up to 60 percent of a teacher's or principal's evaluation must be based on student performance on a state-administered test or other standardized tests. The other 40 percent of the evaluation is based on criteria that the district establishes, such as maintaining discipline, the ability to deliver high-quality instruction, and maintaining collaborative relationships with parents and the community. Principals also must demonstrate the ability to recruit and retain high-performing teachers and manage human and other resources.

The National Association of Secondary School Principals recommends that multiple measures be used to evaluate principals, including state assessments, end-of-course exams, self-assessments, supervisor site visits, climate surveys, teacher evaluations, and teacher retention and transfer rates. States should also consider evaluating principals on their ability to improve working conditions.

Using legislative authority, states should require teachers and principals to be evaluated both annually and periodically throughout the school year. Teacher and principal evaluations should be based primarily on student achievement but should include other measures as well.

Survey Working Conditions and Use the Data to Improve Them

Feedback from multiple teacher surveys confirms that pay is not enough to entice effective veteran educators to stay in the public school workforce. To attract and retain the most effective educators—both teachers and principals—working conditions must be evaluated and improved.⁷⁶ This is especially important in hard-to-staff schools where the challenge to improve student achievement is greater.

State education leaders should invest in surveys that obtain information about how teachers and principals perceive their working conditions. The data collected should be used to improve working conditions to both attract and retain effective teachers and school leaders.

One of the ways to do this is by funding the design and dissemination of educator working conditions surveys. **North Carolina** has conducted surveys of educators about their school conditions every other year since 2002. Research has consistently demonstrated that the presence or absence of certain working conditions can im-

pact student performance and teacher retention.⁷⁷ The state has used the results to inform several policy reforms to enhance teaching conditions. For example:

- New standards have been written for North Carolina principals and teachers that incorporate elements of improved working conditions. All teacher and principal preparation programs must meet these standards as part of accreditation. Additionally, the state has created new evaluation systems for principals and teachers, and the survey results are used as a data artifact to ensure that principals distribute leadership and that teachers are leaders in their classrooms, schools, and the profession.
- Analyses and technical assistance for low-wealth and low-performing schools also have been implemented to ensure school improvement plans address concerns raised in the survey.
- Professional development has been provided to all incoming principals about strategies to improve teacher recruitment, retention, and working conditions

States can build on North Carolina's approach to aligning working conditions with the preferences expressed by today's top talent by paying greater attention to the quality of school leadership. In particular, states need to pay closer attention to the role school leadership plays in the retention of effective teachers. Teachers report that one of the reasons they are likely to stay at a school is the quality of the principal and his or her effectiveness in providing a safe, nurturing environment. In North Carolina, the most effective teachers said in surveys that the quality of their principal would be the deciding factor in their decision to continue their career in the classroom.

The New Teacher Center replicated the working conditions survey in **Alabama, Illinois, Kansas, Maine, Massachusetts, West Virginia,** and Fairfax County, **Virginia**, in 2008 and is working in 2009 in **Colorado, Maryland, and Vermont**. In all of these states, surveys also asked principals specific questions about their working conditions to better understand the dynamics and organizational link between teachers and principals.

One of the working conditions that principals cite as barriers to their effectiveness is a lack of autonomy.⁷⁸ In particular, principals say they need autonomy when making decisions about staff. Studies have shown that student achievement improves when the majority of teachers are hired by a school's current principal. In fact, student achievement is linked to the number of teachers in the school who have been hired by the sitting principal.⁷⁹ The Thomas Fordham Institute, in collaboration with the American Institutes for Research, released a report in 2007 concerning principals' perceptions about their autonomy with respect to leading a school. Overwhelmingly, principals reported the need for more autonomy in the following:⁸⁰

- Determining the number and type of faculty and staff;
- Hiring new teachers;
- Assigning teachers;
- Transferring unsuitable teachers; and
- Discharging unsuitable teachers.

Another working condition issue that makes school leadership challenging is the lack of time

for principals to spend leading instruction. This issue is most acute in hard-to-staff schools where strong instructional leadership is most vital.

In **Kentucky**, the Wallace Foundation is funding the School Administration Manager (SAM) project. The SAM project is designed to assist principals with the management tasks that frequently consume inordinate amounts of their day. It frees time for principals to spend leading instruction by providing the school with an individual who handles the administrative tasks that principals find to be time-consuming distractions from leading instruction. In addition, the project teaches principals how to use time more wisely, so that principals use the additional time serving as the school's instructional leader. Funds to support the professional development and data collection aspects of the program are provided by Wallace, and school districts agree to fund the SAM positions. Data use is an important element of the project; principals have to use data about how they spend their own time to inform future decisions about time allocation and management. Principals in the SAM project report having more time to spend with teachers to provide them with individual leadership that ultimately improves student outcomes and teacher quality.

States should develop working conditions surveys for teachers and principals. States also should consider how they will use the data collected from the surveys to improve working conditions. States can reward districts, schools, and principals who demonstrate a high level of responsiveness in addressing the concerns of their individual teachers and principals.

Conclusion

The strategies and policy recommendations contained in this guide are not panaceas for the dilemmas of contemporary public education; however, in conjunction with strong statewide leadership and collaboration with the appropriate stakeholders, they are necessary to begin to change public education at its most basic level—the education workforce.

Many of the recommendations in this guide are cost-neutral. They involve changing regulations as a means to build a high-quality education workforce. They also require states to examine existing funding priorities to determine whether funds should be shifted to strategies that are proven to improve student achievement and away from priorities that have failed to produce measurable gains in student achievement. Some of the recommendations require new investments as well as long-term planning to sustain. Whether a state undertakes cost-neutral approaches to building a high-quality education workforce or invests in recommendations that require new funding, each state must make a commitment to building and maintaining robust data systems. Data systems are essential to evaluate existing policies to determine if the financial investments a state is making are producing a strong return on the investment. States must be willing to use data in much the same way that school principals are asked to use data—to identify the problem, to select an approach for improvement, to evaluate the merits and results of the approach, and to make changes when the approach is not working.

Governors must decide how to approach the imperative for improving the education workforce, given the fiscal challenges every state currently faces. As this guide suggests, it will be necessary to approach improving the education workforce comprehensively. Using this guide as menu of options for states is not the intent of the publication. Rather, the intent of this guide is for states to recognize the interrelated nature of the three strategies and how the strategies in concert with one another can make measurable changes in the composition of the education workforce. It will be necessary to deploy strong strategists to craft initiatives that are comprehensive and include a variety of both cost-neutral approaches and approaches that will require new and sustainable investments. These changes will require governors to enlist the support of influential individuals in bending public, political, and professional will. This will be especially important because many of the least effective practices in education are the most firmly entrenched within the profession. This effort also will require the inclusion of a variety of stakeholders whose consultation and support will be invaluable.



As states consider implementing the strategies in this guide, they must be mindful of a crucial tool needed to make strategic decisions—data. State efforts to recruit, prepare, and retain teachers and principals are worthwhile investments, but without data to substantiate the case for this investment, the political and public will to sustain them might be lost, especially given the current economic situation. Additionally, the data are essential to states committed to making strategic investments in the education workforce as a means to improve student achievement. Overall, robust data systems that link teachers and principals with student-level data provide states with an abundance of information that can be used to:

- Determine what elements of selectivity are most useful in terms of improving student achievement;

- Pay teachers and principals for their contributions;
- Provide information about what incentives are most effective in getting teachers and principals to teach in and lead the most challenging schools; and
- Answer questions about what works in terms of teacher and principal preparation, as well as what does not work.

The development of data systems that provide states with the information they need to strategically invest in human capital require financial resources and time. However, as the demand for accountability in public education grows, so too, does the need to collect a wide range of data both at the student and educator levels.

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